

February 16, 2024

Company Name	Kudan Inc.	
Representative	CEO	Daiu Ko
	(Securities code: 4425 TSE Growth)	
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## **Kudan announces the release of the MRDK (Mobile Robot Development Kit)**

Kudan Inc. (headquartered in Shibuya-ku, Tokyo; CEO Daiu Ko, hereafter “Kudan”) is pleased to announce that Kudan launched its own Mobile Robot Development Kit (hereafter MRDK) using KudanSLAM.

### 1. Background to the release of the products and their details

Kudan has been providing KudanSLAM for autonomous robots and vehicles for localization/position estimation, the core technology of the autonomous system. The newly launched MRDK is a package that will enable customers to shorten the development and validation cycles of their products by adopting Kudan’s commercial grade SLAM technology and even commercialize the MRDK directly as part of the solution for autonomous mobility application, allowing Kudan technology to solve the pain points of customer products in a highly efficient way.

The MRDK has been introduced on a trial basis to a limited number of clients since 2023, and the positive feedback received from the customers has led to the full-scale introduction of the MRDK to the market. Kudan has already achieved 3 customer commercialization<sup>\*1</sup> in the robotics field and the MRDK is expected to boost the ongoing progression of customer commercialization further and is aimed at realizing autonomous robots and vehicles in previously challenging environments and promoting the spread of Kudan technology.

### **Overview of MRDK**

- A hardware-software integrated package, which is based on a modular architecture with replaceable software and hardware components for autonomous robots and vehicles.
- Kudan's proprietary technology (GrandSLAM) with advanced sensor fusion, enabling highly practical autonomous mobility in complex and challenging environments.
- Various combinations of sensor configurations (multiple cameras, 2D/3D LiDAR, IMU, GNSS, Wheel Odometry, etc.) can be selected for customers to validate and achieve the most optimal sensor setup in terms of performance, cost and supply chain.
- Comprehensive package with integrated processor and processing system, supporting multiple architecture including X86 and Arm/Jetson.

- Easy integration with systems already developed by the customer, including ROS-compliant mobile robot hardware base.

### **Benefits of using MRDK**

- Provides highly accurate and robust localization/positioning estimation in environments where autonomous robots and vehicles could not be implemented with conventional technology (e.g. challenging indoor, outdoor and public roads).
- Enables up to 90% reduction in manual and maintenance work associated with the operation of automated robots compared to conventional systems, enabling customer products that are directly linked to manpower saving and unmanned operations.
- Enables reduction of evaluation and development time and costs for self-position estimation and navigation, which requires complex sensor fusion, by more than 80% compared to conventional systems.
- Customer's business development through demonstration and PoC projects and pilot introductions of robot products can be carried out without a complex preparation process, and a small number of lots can be released directly as products. As a result, business opportunities and social implementation opportunities for customers can be accelerated.

### **Cases where the MRDK can be applied**<sup>\*2</sup>

- Autonomous robots (AMRs) for industrial/consumer uses
- Autonomous driving and position detection of forklifts
- Autonomous driving of logistics robots and vehicles
- Autonomous flight of drones
- Autonomous driving of vehicles



\*1 Customer commercialization is the point at which our direct customers adopt our technology in their products and decide to release their products.

\*2 However, depending on the application, Kudan's customization and technical support is necessary

2. Products release date

February 16<sup>th</sup>, 2024

3. Special expenditure for the products release

There was no special additional expenditure for the release of the new products and they were mainly research and development expenditure such as personnel costs, etc.

4. Future Outlook

We estimate that this product release will only have a minor impact on the company's financial performance at this time. As the company's financial performance will be affected by the future product sales, we will promptly make an announcement if any event arises that is expected to have a significant impact on the company's financial performance such as increased customer orders.

**About Kudan Inc.**

Kudan is a deep tech research and development company specializing in algorithms for artificial perception (AP). As a complement to artificial intelligence (AI), AP functions allow machines to develop autonomy. Currently, Kudan is using its high-level technical innovation to explore business areas based on its own milestone models established for deep tech which provide wide-ranging impact on several major industrial fields.

For more information, please refer to Kudan's website at <https://www.kudan.io/>.

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■ Contact Information

For more details, please contact us from [here](#).